Introduction
Implementation of Basel III in India

The Basel III guidelines on strengthening the global capital framework and new regulatory requirements on liquidity and leverage were proposed in December 2010. This new accord is a set of new banking rules developed by Basel Committee on Banking Supervision to make the banks stronger and efficient enough to overcome any crisis by introducing extra capital and reserves. It is aimed to enhance the individual banking institutions ability to deal with financial and economic stress, risk management and strengthen the transparency and disclosures with the objective of promoting a more resilient banking sector. According to BCBS the Basel III proposals covers primarily the following 5 aspects i) increase in the quality ,quantity, consistency and transparency of capital base to improve the loss absorption capacity of banks ii) increase the risk coverage of capital framework by increasing the requirements for the management and capitalization of counterparty credit risk iii) introduce a non-risk based leverage ratio to prevent an excessive build-up of leverage on institutions balance sheet iv) strengthen the liquidity framework by developing two minimum standards that includes Liquidity Coverage Ratio which will help to survive a stress scenario lasting for 30 days. v) Build-up of capital conservation buffer and countercyclical capital buffer to promote capital conservation that can be run down during periods of stress.

The new guidelines will surely address the systemic loopholes in Basel II but it will be a challenge for Indian banks. As per Basel III banks need to maintain higher capital base at a time when credit demand is going to expand which would increase the pressure on Indian Banks. The increased capital requirements under Basel III will affect the Return on Equity of the banks and the shareholder's expectations. Fitch an international credit rating agency projects the additional capital required to be around USD 50 billion and ICRA estimates a figure of around USD 80 billion. The need of capital will be less for large private sector banks due to higher capital ratios and stronger profitability. Some public sector banks can fall shortage of revised capital adequacy requirement and would depend on government to increase their capital. Apart from government support numbers of banks have to raise capital from the market. In case of implementation of countercyclical capital buffer the biggest challenge to the RBI is identifying the inflexion point in an economic cycle which should trigger the release of the buffers as it requires long series data on economic cycles. The banks have to adopt the advanced approaches to risk management as it will help them to manage their capital more efficiently and improve their profitability.

Conceptual Framework of Basel Accords

In banking entity assets are created as a process of intermediation by accepting deposits; the basic function of intermediation itself is a source of credit and liquidity risks for any banking institution. Further, banks are exposed to various market and non-market risks in performing their functions. These risks expose banks to events, both expected and unexpected, with the potential to cause losses, putting depositors' money at risk. Expected losses may be mitigated by a combination of product pricing and accounting loss provisions, while capital funds are expected to meet unexpected losses. Thus the primary role of capital in a banking institution is to meet the unexpected losses arising out of portfolio choice of banks and to protect the depositor's money.

Bank and regulators all over the world have been concerned about these risks so to address these risks Basel Accords were introduced. Basel Accords are a set of agreements set by Basel Committee on Banking Supervision which provides recommendations on banking regulations in regard to market risk, capital risk and operational risk. The purpose of the accords is to ensure that the financial institutions have enough capital on account to meet obligations and meet unexpected losses. BCBS set out to promulgate standards that would harmonize the regulation of bank capital across the world with the intent of 1) creating a safer banking environment 2) leveling the competitive positions of the banks in different countries.

After two major international bank failures in 1974 (see e.g. Heffernan 2005) for an account of some conspicuous bank failures), a standing committee of bank supervisory authorities in the G-10 countries (Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, UK and USA) was created, with a permanent secretariat in Basel and meetings three times a year. The secretariat is located at the Bank for International Settlements, which is owned by the central banks, formerly only Western countries but now comprising also some central banks from the emerging economies. The role of the committee has changed somewhat over the years. At the outset, its main purpose was to assure that international banks did not escape the supervisory authority which typically is restricted to a particular country, and to ensure that foreign branches and subsidiaries where adequately regulated, since there had been cases where a subsidiaries experienced a bank run but where the central bank of the country where the main bank was situated refused to assist. The initial agreements (“concordats”) which were approved by the committee did not however solve the problems of international banking and financial stability, and this led a new approach as witnessed by the Basel accords.

Basel Accords in the Banking Sector

Basel I the framework of minimum capital standards introduced in 1988 by the Basel Committee on Banking Supervision was designed to increase the safety and soundness of the international banking system and to set a level playing field for banking regulation. Many BCBS member countries as well as non member countries did adopt Basel I and thereby incorporated its features in their own domestic regulatory law. Banks were required to maintain minimum capital adequacy of 8%.against risk weighted assets. Here Basel suggested a portfolio approach to credit risk by assigning appropriate risk weights against each asset. Although praised for achieving its initial goals however Basel I was criticized for its rigidity of one size fits approach and absence of risk sensitivity in estimating capital requirements.

In 2004 BCBS came out with a comprehensive framework of capital regulation popularly known as Basel II. Basel II was built up on three mutually reinforcing pillars – minimum capital requirements, supervisory review process, and market discipline. Under Basel II, banks were required to maintain the minimum capital requirement of 8% against the risk weighted assets, while RWA was computed by considering the three major generic risks – credit, market, and operational risks. Although Basel II was a very comprehensive capital regulation framework architected on sophisticated risk quantification models it failed to address certain issues which emerged during the financial crisis of 2007 -09 such as risk sensitive framework of Basel II proved to be procyclical , it did not impose additional capital requirement on banks that forced major international banks into vicious circle of deleveraging, excessive leverage of the banks, it did not consider liquidity risk as a part of capital regulation as a part of capital regulation and ignored the systemic risk arising from interconnectedness across institutions and markets which led the crisis to spread several financial markets.

In response to the 2007–09 global financial crisis BCBS issued Basel II.5, which was designed to estimate capital requirements for credit risk in the trading book of a bank. Basel II.5 was intended to prevent inappropriate placement of securities in the book that would provide the most favourable accounting treatment of securities at a particular point in time. In that order, the Basel Committee issued a series of documents to address specifically counterparty risk in derivative transactions, strengthening of liquidity standards, and market risk framework. Consolidating all these, the BCBS released the Basel III framework in December 2010.

Overview of Basel III

Basel III or The Basel Accord is a global regulatory standard on bank capital adequacy, stress testing and market liquidity risk. It was agreed upon by the members of the Basel Committee on Banking Supervision in 2010-11 and was scheduled to be introduced from 2013 until 2015 however changes from April 2013 extended implementation until March 31, 2018. According to Basel Committee on Banking Supervision " Basel III is a set of comprehensive set of reform measures developed by Basel Committee on Banking Supervision to strengthen the regulation , supervision and risk management of the Banking Sector. Basel III is a continuation of effort initiated by the Basel Committee on Banking Supervision to enhance the banking regulatory framework under Basel I and Basel II. The latest accord seeks to improve the banking sector's ability to deal with financial and economic stress, improve risk management and strengthen bank's transparency. Thus Basel III guidelines are aimed to improve the ability of banks to withstand period of economic and financial stress as the new guidelines are more stringent than the earlier requirements for capital and liquidity in the banking sector.

Major Features of Basel III:

- Better Capital Quality: One of the key elements of Basel III is the introduction of much stricter definition of capital. Better quality capital means higher-loss absorbing capacity.
- Capital Conservation Buffer: Banks will be required to hold to hold a capital conservation buffer. The aim to build this buffer is to ensure that banks maintain a cushion of capital that can be used to absorb losses during periods of financial and economic stress.
- Countercyclical Buffer: It has been introduced with the objective to increase capital requirements in good times and decrease the same in bad times. The buffer will range from 0% to 2.5%.
- Minimum Common Equity and Tier 1 Capital Requirements: The minimum requirement for common equity has been raised under Basel III from 2% to 4.5% of total risk weighted assets. The overall Tier I capital requirement will also increase from 4% to 6%.
- Leverage Ratio: This aims to put a cap on swelling of leverage in the banking sector on a global basis.
- Liquidity Ratios: A new Liquidity Coverage Ratio and Net Stable Funding Ratio are to be introduced in 2015 and 2018 respectively.
- Systemically Important Financial Institutions: Systemically important banks will be expected to have loss absorbing capability beyond the Basel III requirements.

Basel III challenges for Indian Banks

Basel III norms which will come into effect this April are likely to increase pressure on Indian banks to raise capital and can lead to some changes in banking industry. Some of the key challenges are as follows:

- Additional Capital: As banks go on increasing the risk weighted asset portfolio to meet the growing economy credit requirements they would need additional capital funds under Basel III. The international credit ratings agency, Fitch estimates this figure to be around USD 50 billion while ICRA projects a figure of around USD 80 billion.
- Growth Barrier: Growth and financial stability seem to be two conflicting goals for an economy. Indian economy will see higher growth in the manufacturing sector which enhances demand for credit. Banks need to maintain higher capital requirements as per Basel III when credit demand is going to expand rapidly. This will raise the cost of credit and hence militate against growth.
- Profitability of Banks: As the upper limit for leverage ratio by Basel III has been set at 3% the value of the leverage multiplier will come down resulting in reduction in the Return on Equity. The enhanced capital requirements under Basel III regime are likely to affect the ROE of the banks and the shareholder expectations on the minimum required rate of return.
- Implementing the Countercyclical Capital Buffer: Banks need to build a higher level of capital in good times that can be run down in times of economic contraction. The challenge to the RBI is identifying the inflexion point in an economic cycle which should trigger the release of buffers.
- Risk Management: Banks need to migrate to the advanced approaches especially as they expand their overseas presence. The adoption of advanced approaches to risk management will enable banks to manage their capital more efficiently and improve their profitability.
- Systemic Risk: Basel III seeks to mitigate systemic risk by identifying both Domestic Systemically Important Banks and Global Systemically Important Banks and mandating them to maintain a higher level of capital depending on their level of systemic importance.

Review of Literature

1. Mora, Fernando., Matten, C., Barfield R. (2010). Capital Management in Banking: The way forward. *PwC the Journal*, 1-6. Basel III has revised the banking sector. It will have an impact on the profitability and banks have to reconstruct their business models to adapt new capital and liquidity standards. Basel III has introduced tougher capital standards, capital buffers and need for minimum capital ratios. It has also build up new liquidity standards that will bring changes in bank's balance sheet, control on the unstable sources of funding. These standards will have a distinctive effect across the banking industry and capital markets.

   Research Gap Identified

   After reviewing this article it was observed that the researcher could have also highlighted the ways to raise additional capital by the banks.

2. Wignall, B., Atkinson, P. (2010). Thinking Beyond Basel III: Necessary Solutions for Capital and Liquidity. *OECD Journal: Financial Market Trends*, 2010 (1), 1-23. There were many reasons of crisis such as big institutions took on too much risk, bankruptcy resulting from infection and counterparty risk, inadequacy of regulatory and supervisory integration and effective resolution regimes. This article shows that how Basel III guidelines address these problems making the banks stronger and efficient enough to face any crisis in future. The Basel III capital framework has some beneficial elements such as leverage ratio, capital buffers and plan to deal with procyclicality.

   Research Gap Identified

   After reviewing this article it was observed that it is a complete solution of the research gap of the previous article.

3. Chabanel, P. (2011). Implementing Basel III: Challenges, options and opportunities. *Moody's Analytics Enterprise Risk Solutions*, 1-10. This article examines the most important challenge banks will face at the time of implementation of Basel III- the requirements to match the interest of the business against the requirements of the regulator. It also examines the effects on risk and finance , suggestions of all the countries as they will be taking various ways to adopt Basel III, problems related to controlling quality of data and stress testing, auditing of regulatory data, challenges of different back

office banking systems into a united Basel III framework.

Research Gap Identified

After reviewing this article it was observed that the researcher could have also discussed the challenges Indian banks will face at the time of implementation of Basel III.

4. King, P., Tarbert H. (2011). Basel III: An Overview. *Banking Financial Services Policy Report*, 30 (5), 1-18. This article presents an overview of Basel III Capital Accord. This article highlights the major elements of Basel III and draft how these regulation changes will effect financial institutions around the world. This article focuses upon the shortcomings of Basel I and Basel II, increasing the quality and quantity of capital, establishing additional buffers , introducing a leverage ratio, managing Counterparty risks, improving liquidity, dealing with SIFI's and implementation of Basel III.

   Research Gap Identified

   After reviewing this article it was observed that the researcher could have also highlighted that how the new guidelines of Basel III will affect the banks globally.

5. Schwerter, S. (2011). Basel III's ability to mitigate systemic risk. *Journal of Financial Regulation and Compliance*, 19(4), 337-354. The purpose of this paper is to evaluate Basel III's ability to reduce systemic risk and drawbacks of Basel II. It shows the importance of reducing systemic risk to achieve the purpose of financial stability by focusing on the theoretical foundations of systemic risk. This paper examines and analyzes the important aspects of this intangible risk. It also explores the current regulation of systemic risk. It also assesses the efforts of Basel Committee to reduce these weaknesses through Basel III and its capability to reduce weaknesses of Basel II and systemic risk factors.

   Research Gap Identified

   After observing this article it was observed that the researcher could have also discussed about other factors of Basel II.

6. Lyngen, N., (2012). Basel III: Dynamics of State Implementation. *Harward International Law Journal*, 53(2), 520-535. This article has used first two Basel accords for understanding Basel III. It advice that national level implementation of Basel III has been quarrelsome and difficult due to many

reasons such as changes to the Basel framework are costly and it can create negative impacts for global competitiveness and profitability of financial institutions of few states. This has built the political pressures at the national level which has affected the implementation at state level.

Research Gap Identified

After reviewing this article it was observed that researcher could have highlighted more about the implementation of Basel I and Basel II norms at state level.

7. Allen, B., Chan, K., Milne, A., Thomas, S. (2012). Basel III: Is the cure worse than the disease?. *International Review of Financial Analysis,* 25, 159-166. This paper has debate over the economic effect of Basel III guidelines to banking regulation. We find that long term effect of these guidelines should be comparatively less but modifications required to business models, processes and governance required to be managed cautiously to avoid strict deficiency of funds. We admit with analyst of Basel III that there is a real hazard that guidelines will restrict the availability of credit and decrease economic activity. But the issue is not the stricter capital and liquidity requirements but the problem is to insure a coordinated adaptation of new guidelines across the whole financial services sector.

Research Gap Identified

After reviewing this article it was observed that the researcher could have highlighted more about the actions required by the banks to implement the Basel III guidelines successfully.

8. Roy, D., Kohli B., Khatkale, S. (2013). Basel I to Basel II to Basel III: A Risk Management Journey of Indian Banks. *AIMA Journal of Management & Research,* 7 (2/4), 1-23. This paper has highlighted the journey of Indian Banks from Basel I to Basel III. In 1988 BCBS introduced Basel I to control banking risk with the support of Capital Adequacy Ratio. But rapidly after various frauds and failures Basel II was introduced. This Basel had various ways from patterned ways to the leading ways to meet the risk management level of banks. But globally Basel II got failed to avoid the crisis. Some major issues were high leverage, asset liability mismatch and liquidity difficulty. For solving these problems Basel III guidelines were presented with Liquidity Coverage Ratio, Leverage Ratio, Capital buffers.

Research Gap Identified

After reviewing this article it was observed that the researcher could have also studied main reasons behind the failures of Basel I and Basel II.

9. Jayadev, M. (2013). Basel III implementation: Issues and challenges for Indian banks. *IIMB Management Review*, 25(2), 115-130. This article lays the background of Basel III and includes the views of senior executives of Indian banks and risk management experts on the challenges of implementing the Basel III framework especially in areas such as increase in quality and quantity of capital funds, growth versus financial stability, challenges for increased profitability, implementation of countercyclical capital buffer, return on equity, enhancing of risk management systems.

   Research Gap Identified

   After reviewing this article it was observed that the researcher could have also highlighted the challenges to be faced by public sector banks as their challenges will be more than private sector banks.

10. Balasubramaniam, C.S. (2013)**.** Basel III Norms and Indian Banking: Assessment and Emerging Challenges. *Abhinav Journal*, 1 (8), 39-52. This paper is divided in three parts. The first part attempts to describe the changes in banking sector since 1991 reforms and the requirement of introducing Basel III to the Indian banking system. The second part presents the Basel guidelines and explains the necessity of transition from Basel II to Basel III norms for bringing in measures and safety standards which would prepare the banks to become more resilient to face any crisis and prevent the banks from liquidation. Part III has highlighted on a discussion on the acceptance by the Indian banks to the Basel standards. It also covers the issues and challenges faced by the Indian banks.

11. Aathira, K., Shanthi, R. (2013). Basel III- The Impact on the Banking Sector. *Sumedha Journal of Management*, 2(2), 4-10. This paper has explored the concept of Basel III and implications of Basel III on banking sector. Basel III was introduced after the financial crisis of 2007-2009.This crisis put the heavy pressure on the banks for survival as whole capital was gone in the crisis. Harsh economic damage was caused through job reduction, house repossessions, decreased GDP and lending of credit etc due to breakdown of big banks. The Basel III guidelines were mounted in a manner that ensures

safety and stability of financial sector during downturn of an economy.

Research Gap Identified

After reviewing this article it was observed that the researcher could have also discussed about the impact of Basel III norms on Indian banking system.

12. Mohan, P., George, G. (2013). Basel 2.5 and Basel III: The impact of the New Capital and Liquidity Rules on Securitization. The Journal of the Structured Finance, 18 (4), 77-100. This article is an explanation of regulatory capital and liquidity standards for securitizations. Basel 2.5 and Basel III guidelines have demanded additional requirements which will impact on the incentives of the banks to securitize their own assets and invest in securitizations. In June 2012 the U.S banking regulators introduced their form of the Basel III liquidity standards; if they are adopted in the version introduced by Basel Committee would highly increase the costs to banks of providing credit and liquidity facilities to securitization structures including asset backed commercial papers.

Research Gap Identified

After reviewing this article it was observed that the researcher could have also highlighted the ways to raise additional capital to invest in securitizations.

13. Sutorova, B., Teply, P. (2013). The impact of Basel III on Lending Rates of EU Banks. *Czech Journal of Economics and Finance*, 63 (3), 226-243. In this paper practical aspects of the new framework of Basel III for the Banking Sector in the European Union have been highlighted. A simultaneous equation model was used where banks choose the optimum level of capital. In the modeling data on 594 commercial banks, saving banks, cooperative banks, mortgage banks in European Union. Results predict a modest drop in level of loans. The drop in loans is expected to be large because many European banks are already fulfilling with the capital requirements though they are not yet completely compulsory.

Research Gap Identified

After reviewing this article it was observed that the researcher could have also discussed about the impact of Basel III on lending rates of European banks in comparison to other banks.

14. Pokutta, S., Schmaltz, C. Optimal Bank Planning Under Basel III Regulations. *The Capco Institute Journal of Financial Transformation* Journal 34

Cass-Capco Institute Paper Series on Risk. 165-174. This article provides a modeling framework for business planning of banks under Basel III. For this purpose banks planning has been written as an established optimization issue where minimum requirements of Basel III enter as a pressure. The linear program provides dual variables that are understood for each Basel III ratio as a compliance cost. We examine the impacts of Basel III on product mix of banks for a simplified, deterministic two product case.

Research Gap Identified

After reviewing this article it was observed that the researcher could have also discussed about the problems faced while implementing the strategy.

15. Rosa, L. Weathering the Tempest: The impact of the Basel III Capital Accord on Asset Finance *Transactions.* The *Tennessee Journal of Business Law*, 14, 179-188. This article demonstrates the critical dissimilarities between second and third Basel Accord, examine the predicted impact of the Third Accord on Asset Based Finance and identify events that form a concept about the implementation of Third Accord. These new formula on asset based financing have been disapproved by some as an obstruction to commerce yet it was appreciated by others with a hope of preventive measure that will give long term stability.

Research Gap Identified

After reviewing this article it was observed that the researcher could have also discussed about the impact of Basel III norms on other types of finance ex. Trade Finance.

Research Gap Identified

After reviewing various articles it was observed that the researchers could have highlighted more about the impact of Basel III guidelines on the banks globally , the main reasons behind the failures of Basel I and Basel II and impact of these guidelines on the Indian banks as comparison to other global banks.

Relevance of the Study

Why the Study on Implementation of Basel III in India is important?

The third installment of the Basel Accords was developed in response to deficiencies in financial regulation revealed by late- 2000s financial crisis. The objectives of Basel III have been to minimize the probability of recurrence of a crisis of such magnitude. The aim of Basel III is to maintain bank's solvency by strengthening the regulation, supervision and risk management of the banking sector.

Although implementing Basel III will be an evolutionary step, the impact of Basel III on the banking sector cannot be underestimated as it will drive significant challenges for the Indian banks that need to be understood and addressed. Implementation of Basel III is expected to make Indian banks stronger, more stable and sound so that they could deliver value to the real sectors of the economy.

The study of Implementation of Basel III in India is important in order to determine and understand the challenges and issues that the Public Sector banks in India will face while implementing Basel III and its impact on the profitability, capital framework and liquidity position of the banks.

Objectives of the study

- To examine Basel I and Basel II Accord and the reasons behind their shortcomings.
- To determine the problems for Public Sector Banks in India while implementing Basel III.
- To ascertain the impact of Basel III on the public sector banks in India.
- To analyze the Basel III Accord with reference to Public Sector Banks in India.

Hypothesis

Ho- There is no significant impact on the capital structure of the Public Sector Banks in India while implementing Basel III.

H_1- There is a significant impact on the capital structure of the Public Sector Banks in India while implementing Basel III.

Methodology

Research Design:

Research refers to the systematic method consisting of enunciating the problem, formulating a hypothesis, collecting the facts or data, analyzing the facts and reaching certain conclusions either in the form of solutions towards the concerned problem or in certain generalizations for some theoretical formulation.
Research design is a plan, structure and strategy of investigation conceived so as to obtain answers to research questions. A detailed outline of how an investigation will take place. A research design will typically include data collection methods, instruments to be employed, the way instruments will be used and the intended means for analyzing data collected.
Descriptive research design will be used in this study.

Universe:

The universe of the study consists of the public sector banks operating in India.

Sample:

The study will collect financial data related to public sector banks operating in India.

Data Collection:

Secondary data related to selected banks will be collected through RBI web sites, Prayag, National Bank Association Pune etc.

Analysis of Data

- Data so collected will be tabulated suitably for the purpose of the analysis.
- Appropriate inferential statistical tools like ANOVA will be applied for Hypothesis testing.
- Ratios Analysis will be done.

Limitations of the Study

- As it is a preliminary stage of research so it would be too early to discuss the limitations at this point of time.

Chapterisation

CHAPTER I -	**Introduction**	**1-15**
1.1	About Basel III	**1**
1.2	Global Banking Industry	**9**
1.3	Basel III in the Banking Industry	**11**
1.4	Basel III in Public Sector Banks in India	**14**
CHAPTER II-	**Basel III Accord: A Prologue**	**16-58**
2.1	Conceptual Framework of Basel Accords	**16**
2.2	Basel Accords in the Banking Industry	**18**
2.3	Objectives of Basel III	**23**
2.4	Relevance of Basel III for the Banking Industry	**25**
2.5	Introduction to Indian Banking Industry	**30**
2.6	Basel III in the Indian Banking Industry	**35**
2.7	RBI Guidelines: For Indian Banks on Basel III	**42**
2.8	Issues and Challenges of Basel III for Public Sector Banks in India	**45**
2.9	Impacts of Basel III on Public Sector Banks in India	**52**
CHAPTER III- Methodology		**59-72**
3.1	Research: An Overview	**59**

3.2	Review of Literature	**59**
3.3	Justification and Relevance of study	**60**
3.4	Statement of Problem	**61**
3.5	Scope of Study	**61**
3.6	Objectives	**62**
3.7	Hypothesis	**63**
3.8	Data Sources and Methods of Data Collection	**65**
3.9	Sample Design	**66**
3.10	Respondents	**67**
3.11	Data Analysis and Interpretation	**68**
3.12	Limitations of study	**70**
CHAPTER IV- Analysis, Interpretation & Hypothesis Testing		**73-122**
4.1	Introduction	**73**
4.2	Analysis based on online data	**75**
4.3	Hypothesis Testing	**100**
• ANOVA		**101**
CHAPTER V- Implementation of Basel III: Public Sector Banks		**123- 153**
5.1	Basel III in the Public Sector Banks in India	**123**

CHAPTER VI- Conclusion	**154- 164**
6.1 Findings	**154**
6.2 Recommendations	**161**
6.3 Scope for further study	**170**
Bibliography	**i-v**
Appendices	
A- List of Research Papers	
B- Copy of the manuscript of the research papers	

Bibliography

1. Mora, Fernando., Matten, C., Barfield R. (2010). Capital Management in Banking: The way forward. *PwC the Journal*, 1-6.

2. Wignall, B., Atkinson, P. (2010). Thinking Beyond Basel III: Necessary Solutions for Capital and Liquidity. *OECD Journal: Financial Market Trends*, 2010 (1), 1-23.

3. Chabanel, P. (2011). Implementing Basel III: Challenges, options and opportunities. *Moody's Analytics Enterprise Risk Solutions*, 1-10.

4. King, P., Tarbert H. (2011). Basel III: An Overview. *Banking Financial Services Policy Report*, 30 (5), 1-18.

5. Schwerter, S. (2011). Basel III's ability to mitigate systemic risk. *Journal of Financial Regulation and Compliance*, 19(4), 337-354.

6. Lyngen, N., (2012). Basel III: Dynamics of State Implementation. *Harward International Law Journal*, 53(2), 520-535.

7. Allen, B., Chan, K., Milne, A., Thomas, S. (2012). Basel III: Is the cure worse than the disease?. *International Review of Financial Analysis,* 25, 159-166 .

8. Roy, D., Kohli B., Khatkale, S. (2013). Basel I to Basel II to Basel III: A Risk Management Journey of Indian Banks. *AIMA Journal of Management & Research,* 7 (2/4), 1-23.

9. Jayadev, M. (2013). Basel III implementation: Issues and challenges for Indian banks. *IIMB Management Review*, 25(2), 115-130.

10. Balasubramaniam, C.S. (2013)**.** Basel III Norms and Indian Banking: Assessment and Emerging Challenges. *Abhinav Journal*, 1 (8), 39-52.

11. Aathira, K., Shanthi, R. (2013). Basel III- The Impact on the Banking Sector. *Sumedha Journal of Management*, 2(2), 4-10.

12. Mohan, P., George, G. (2013). Basel 2.5 and Basel III: The impact of the New Capital and Liquidity Rules on Securitization. The Journal of the Structured Finance, 18 (4), 77-100.

13. Sutorova, B., Teply, P. (2013). The impact of Basel III on Lending Rates of EU Banks. *Czech Journal of Economics and Finance*, 63 (3), 226-243.

14. Pokutta, S., Schmaltz, C. Optimal Bank Planning Under Basel III Regulations. *The Capco Institute Journal of Financial Transformation* Journal 34 Cass-Capco Institute Paper Series on Risk. 165-174.

15. Rosa, L. Weathering the Tempest: The impact of the Basel III Capital Accord on Asset Finance *Transactions.* The *Tennessee Journal of Business Law*, 14, 179-188.

16. Barfield, R. (2011). *A Practitioner guide to Basel III and Beyond.* Sweet Maxwell Ltd.

17. Tarullo, K. (2008). *Banking On Basel: The Future on International Financial Regulation*. Peterson Institute for International Economics.

18. John, Hull. (2012). *Risk Management and Financial Institution.* Wiley India Pvt Ltd.

19. Ernst & Young (2012). Basel III: Fundamental Trading Book Review. Retrieved from http://www.ey.com/Publication/vwLUAssests/Basel_III_fundamental_trading_book_review/$FILE/Basel_III_fundamental_trading_book_review.pdf

20. Accenture. (2012). Basel III Handbook. Retrieved from http://www.accenture.cm/SiteCollectionDocuments/PDF/Accenture-Basel-III-Handbook.pdf.

21. Latham & Watkins. (2011). Regulatory Capital Reform under Basel III. Retrieved from http://www.garp.org/media/583507/regulatorycapitalreform baseliii_nicolaides03231.pdf

22. Http://www.basel-iii-accord.com/

23. Http://www.bis.org/publ/bcbs179.htm

24. Http://www.dsij.in/research/blog/month/5/year/2012.aspx

25. Http://www.moneycontrol.com/news/business/transition-to-Basel-iii-will-not-bechallenge-crisil_699592.html.

26. Http://www.thehindu.com/business/basel-iii-to-benefit-indian-banking-system-subbarao/article3859311.ece

27. Http://www.moneycontrol.com/news/icra-reports/basel-iii-guidelinesits-impact banks-icra_700269.html

28. Http://www.ftkmc.com/newsletter/Vol4-27-Sep16-2013.pdf

29. Http://www.abhinavjournal.com/images/Commerce_&_Management/Aug12/4.pdf

30. Http://www.rbi.org.in/scripts/NotificationUser.aspx?Id=8806&Mode=0

31. Http://jetems.scholarlinkresearch.com/articles/BASEL%20III.pdf